

REMARKS

Status of Claims

Claims 1-4, 6-21, 23-37, 44-45, 47-49, 52-80, and 85-93 were pending. By this Amendment, claims 1, 47, and 92 are amended, claims 36-37, 48-75, 77, and 93 are canceled, and new claims 94-106 are presented. No new matter is entered. Claims 1-4, 6-21, 23-37, 44-45, 47, 76, 78-80, 85-92, and 94-106 are now pending.

Interview Summary

Applicants thank the Examiner for the courtesies extended during an in-person interview with Applicant L. Chen and the undersigned attorney on August 28, 2009. The Examiner's summary accurately sets forth the substance of the interview.

Claim Rejection: 35 U.S.C. § 112, second paragraph

Claim 92 was rejected for indefiniteness. The claim amendment resolves any ambiguity.

Claim Rejections: 35 U.S.C. § 103(a)

Claims 1-4, 6-10, 14-17, 29-30, 32, 36, 37, 44, 45, 47, 76-80, 85-89, and 90-93
were rejected under 35 U.S.C. § 103(a) as encompassing subject matter unpatentable over
U.S. Pat. No. 7,198,759 to Bryning et al. in view of U.S. PGPub No. 2002/0192677 to
Dimond et al.

Claim 1, as amended, requires that each segment be fluidly isolated by a seal formed by a bonding of opposed wall portions of the tubule to one another. Claim 1 further requires that such seals are broken by application of fluid pressure on a segment that is fluidly isolated in part by the seal. In addition, the claim requires that such seals be capable of being clamped where the opposed wall portions of the tubule are bonded, without breaking the seal, to prevent the seal from being broken by application of fluid pressure on a segment that is fluidly isolated in part by the seal. These features are discussed in paragraphs 22, 23, and 46 of the present application's specification.

Bryning does not and cannot use such seals. As Bryning clearly explains throughout his disclosure, his seals are broken by clamping them. Consequently, his seals are destroyed by clamping. The present claim requires a tubule having seals that survive clamping without being broken. Bryning is fundamentally incompatible with such a requirement. Dimond does not remedy Bryning's deficiency in this regard.

Claim 94 requires that the opposed wall portions of the tubule are left free of projections when the seal is broken. Bryning's Fig. 3b clearly shows squashed remnant 112 projecting from the wall. It would not have been obvious to modify Bryning to eliminate that projection, because Bryning's method fundamentally depends on deforming plastic wall 108; there is no physical way to deform that wall without leaving some sort of projection.

Claims 95-97 each require a chamber proximal to the opening. It would not have been obvious to add such a proximal chamber to Bryning because it would serve no purpose. That chamber can be accessed only if there is some way of transporting fluid proximally. But because Bryning drives his fluid samples distally with centripetal force (see col. 6, line 32 and elsewhere), he has no way to drive fluid proximally. So a proximal waste chamber would be useless in the context of Bryning's disclosure.

Claim 18 was rejected under 35 U.S.C. § 103(a) as encompassing subject matter unpatentable over Dimond in view of Bryning at further in view of U.S. PGPub No. 2003/0134390 to Presnell et al.

Claims 23-28 and 31 were rejected under 35 U.S.C. § 103(a) as encompassing subject matter unpatentable over Bryning in view of Dimond and further in view of U.S. PGPub No. 2004/0189311 to Glezer et al.

Please reconsider the rejection of these claims in view of the arguments given above for claim 1 as amended.

Claim 47 was rejected under 35 U.S.C. § 103(a) as encompassing subject matter unpatentable over Chen et al. 5,422,271 in view of Miethe et al. 6,488,894.

Claim 47 has been amended in similar manner to claim 1 and also to require that segments be separated from adjacent segments only by seals. Chen's device uses channels

to connect the various reagents to the reaction chamber so that they are added to the reaction chamber in a controlled manner. His device will not operate properly with segments that are separated from one another only by seals.

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Respectfully submitted,

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